Police Sniping Rifle 7.62 X 51 mm

OPERATOR'S MANUAL

Steyr Mannlicher GmbH & Co KG

WARNING:

Cleaning liquid or lubricants or insect repellants which contain solvents may influence the synthetic parts of the weapon or even may damage them.

Caution!

Before unpacking and using the rifle you are to read this Operator's manual; it will warn against possible dangers that could be caused by misuse that might lead to accidents, and familiarize you with the rifle's function and handling characteristics.

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1-BA-01013

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1. GENERAL DESCRIPTIONS

The Steyr Police Sniping Rifle model SSG is a repeating rifle which has been designed to meet the special requirements of the armed and law enforcement forces. Very impressive is the high accuracy of this weapon. In order to be able to take full advantage of the performance capability it is necessary to use first- class ammunition.

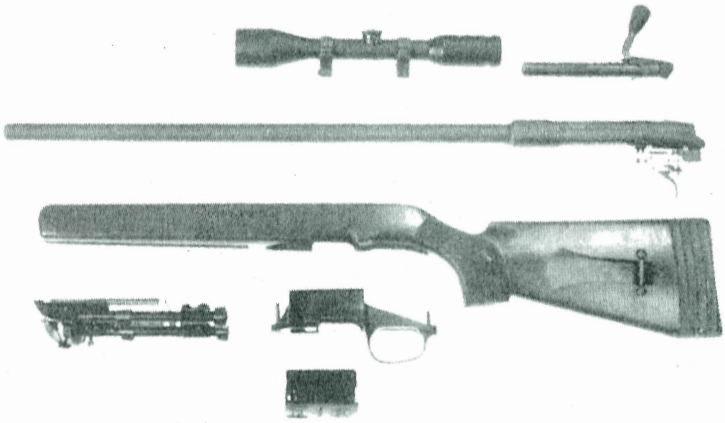
The design is based on the world famous Steyr- Mannlicher hunting rifles. The receiver is dovetail grooved to allow quick and simple clamp mounting of the scope. Adapters are used to mount the various night vision devices. A big variety of accessories is offered:

- scabbard for the scope
- cleaning kit
- carrying sling
- a light bipod (Harris)

2. MAIN FEATURES

2.1. Barrel/Receiver

The cold hammer forged barrel is shrunk into the receiver over a length of 57 milimetres to build a form unit. This tight and precise connection influences positively the accuracy. A mechanical sight is mounted in case the optical sight is unserviceable.



2.2. Trigger system

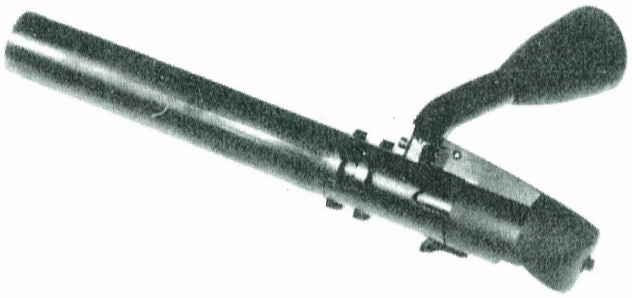
The trigger is of shot gun typ and is external adjustable in trigger travel and trigger weight.

2.3. Safety

The 2-position sliding safety is easy to handle and actuates indirectly on the firing pin and blocks in the position ''safe'' also the bolt handle.

2.4. Bolt

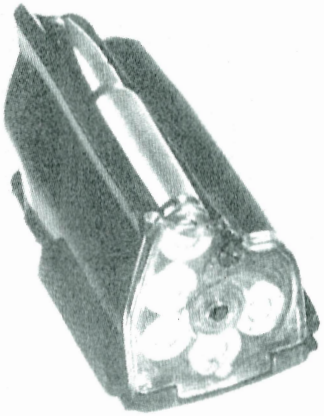
The smooth cylindric bolt has a rear locking system consisting of 6 overdimensional locking lugs to guarantee the utmost safety for the shooter.



The ergonomic shaped bolt handle allows quick unloading and loading due to the fact that opening angle is only 60°. This feature gives the possibility to mount scopes at a very low mounting height.

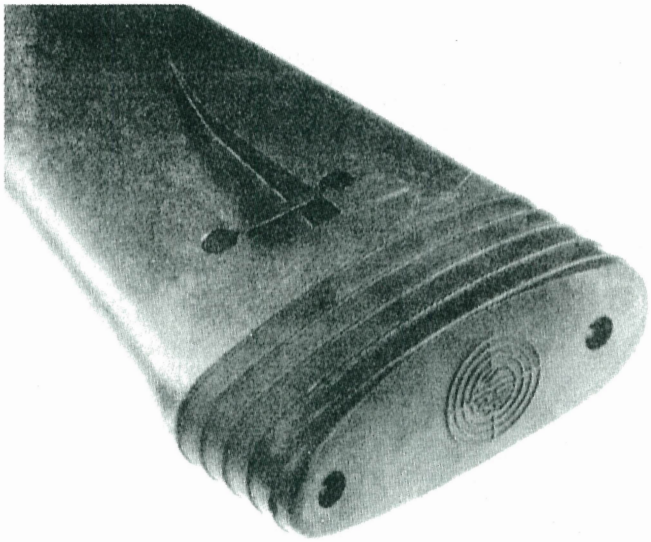
2.5. Magazine

The 5 round rotary magazine is detachable and made of high quality synthetic material. The transparent magazine cover allows at all times a visual check of the ammunition left in the magazine.



2.6. Stock

The stock is moulded out of synthetic material and has an ergonometric design suitable for right and left hand users. The stock is highly resistant, easy to clean and its length is adjustable to the individual requirements.



The front of the stock is equipped with a rail to accomodate a sling swivel or a bipod.

3. TECHNICAL SPECIFICATIONS

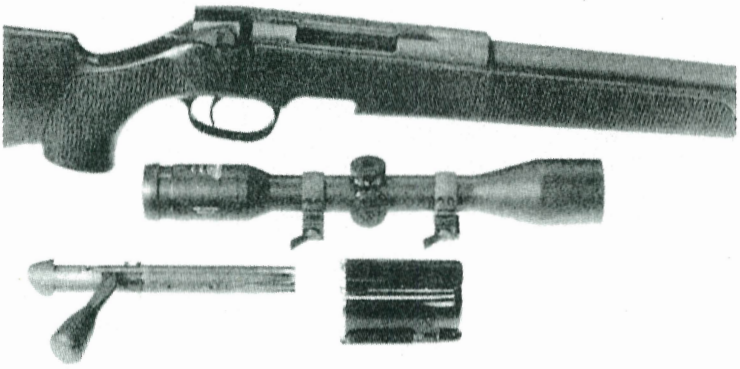
Caliber	7,62x51 NATO (.308 Win.)
Length overall (including 4 spacers)	1140 mm
Height, excl. rifle scope	182 mm
Height, incl. rifle scope	221 mm
Width	71 mm
Barrel length	650 mm
Number of grooves	4
Twist length, 1 turn in	305 mm (12 in.)
Weight, incl. magazine, excl. scope	4.050 kg
Weight, incl. magazine, incl. scope	4,670 kg
Trigger pull (adjustable)	11-18 N
Magazine capacity	5 rds.

4. PREPARING THE WEAPON

4.1. Transport and packing

The weapon comes in a resistant cardboard-box. Bolt, magazine and scope are separately secured in the box.

The afore mentioned precaution should always be carried out for transport.



When ever accepting an assembled weapon treat it as if it were loaded and ready to fire. In that case carry out the unloading procedure (Unloading see paragraph 5.4.) To prepare the rifle for firing the following procedure has to be conducted:

4.2. Empty-chamber inspection

Verify that no cartridge or empty case is located in the chamber or in the magazine.

4.3. Cleaning of chamber and bore

* remove bolt in case not carried out before (Remove bolt see paragraph 6.2.)
* check barrel for obstruction

For the cleaning of the bore use cleaning cord and wick holder.

Insert cleaning paper in wick holder and pull through in direction chamber towards muzzle.

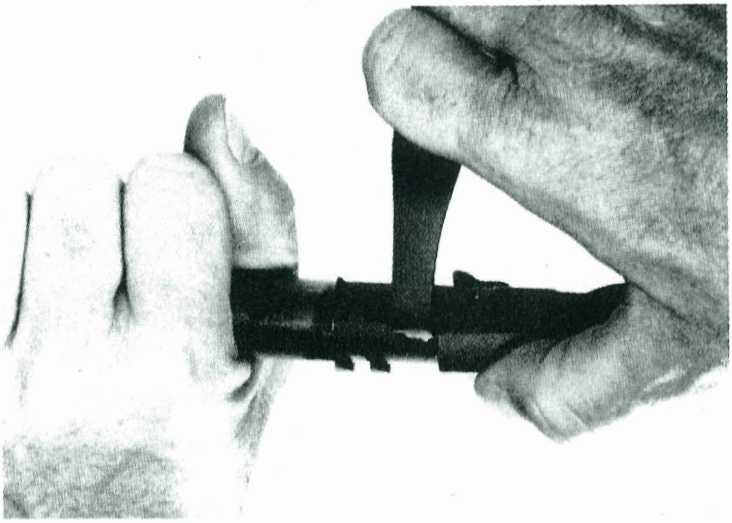
Clean the chamber with a dry rag if necessary use a wooden stick.

Use a rag to wipe off protective oil frome metal parts

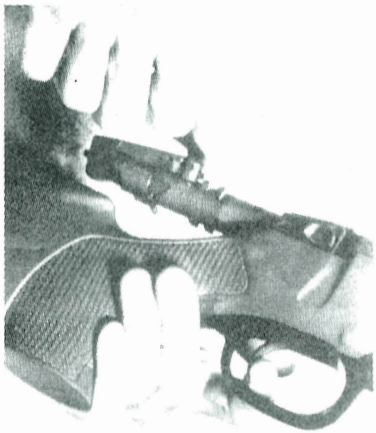
Note: Before each shooting ensure that the inside of the barrel and chamber is wiped dry.

4.4. Inserting the bolt

If the firing pin is decocked, it must first be cocked: left hand holds bolt firmly, right hand moves bolt handle counter-clockwise.



Now the firing pin is cocked and the bolt can be inserted into the receiver. Index finger of left hand pulls trigger and right hand shifts bolt with long end first into receiver. Make sure that firing pin lug faces downwards and safety is on "fire" (red dot visible). Turn bolt handle 60° clockwise whilst pulling the trigger. The firing pin is now decocked; this is indicated by the red end of the firing pin which has now disappeared in the slide cap.



4.5. Mounting of the scope

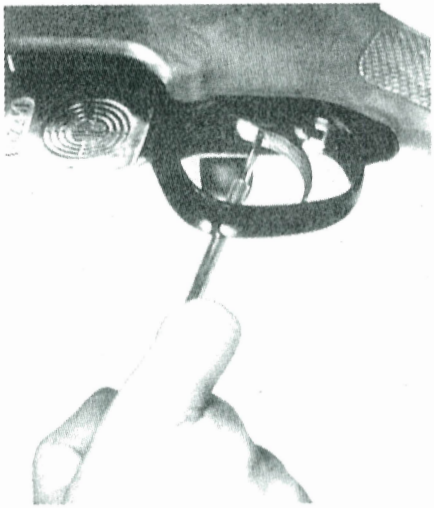
Check if clamping levers are loose - place rear scope base on its most rear position at the mounting rail and slide it to its foremost position and thighten clamp screws. Check if properly fixed by trying to pull the scope back.

4.6. Adjusting the trigger

To adjust trigger slack turn front adjusting screw

— trigger travel too short: turn screw counter-clockwise

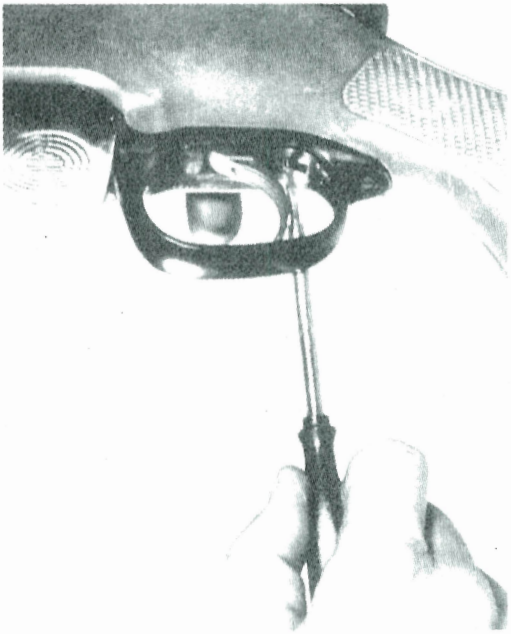
— trigger travel too long: turn screw clockwise



Adjusting can be carried out by the shooter to his individual requirements; it may be noted that a too short trigger slack may leaded to unintentional firing.

Trigger pull can be adjusted by the rear adjusting screw.

The setting of the trigger pull is on its minimum when leaving the factory. You therefore must not turn the relevant adjusting screw anti-clockwise. A clockwise turn will increase the trigger pull.



4.7. Adjusting of stock length

The shooter has the possibility to adjust the stock length to his individual requirements.

Use a suitable screwdriver to unscrew the two screws for the rubber plate and remove the required amount of spacers to meet your requirements and fix again rubber plate.

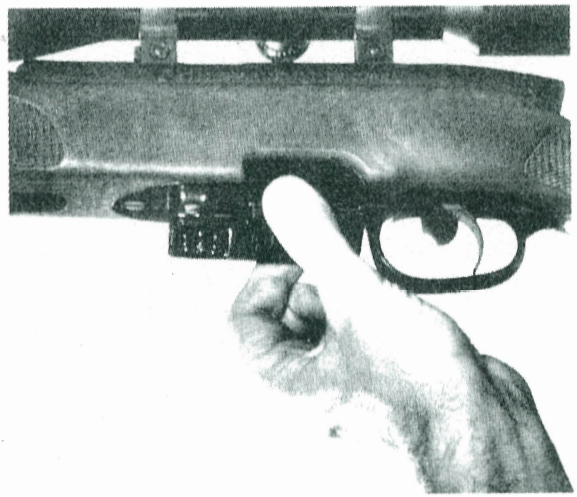
5. HANDLING

Important notes concerning the handling of the weapon:

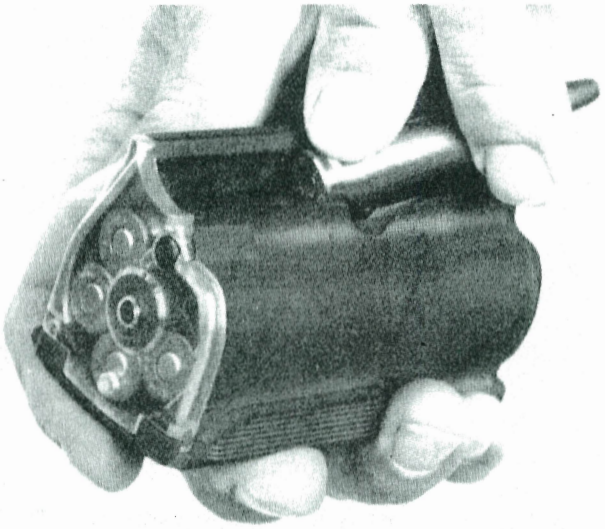
— Use only commercially available ammunition of the correct caliber.
— During all manipulations point the weapon in a safe direction.
— Never leave your finger on the trigger during any manipulations.
— Unsafe weapon only shortly before firing.
— Unload weapon immediately after using
— Detach bolt and magazine from the weapon prior to transportation.

5.1. Loading the magazine

Remove magazine by pressing both ripped grooved magazine catches with index finger and thumb.



Place head of cartridge where the magazine allows inserting and slide it back to magazine cover. The magazine can hould 5 rounds.



5.2. Loading the weapon

The loaded magazine can be inserted without any noise, if both magazine catches are fully pressed and magazine is inserted completely.

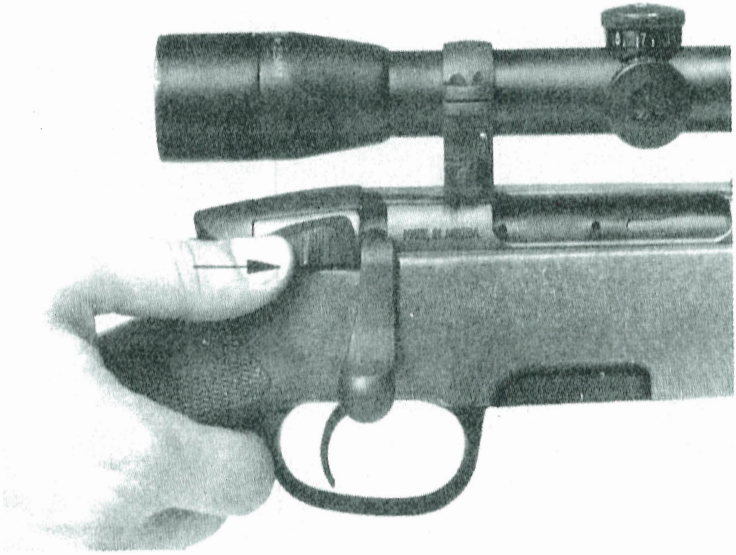
Open the bolt, pull it back completely and close bolt again. By doing so, a cartridge is fed into the chamber.

Set the weapon on safe by sliding back the safety catch slide with bent right index finger - white dot becomes visible.

5.3. Firing

— aim at target

— release safety by pushing forward the safety catch slide with the use of the right thumb - red dot becomes visible.

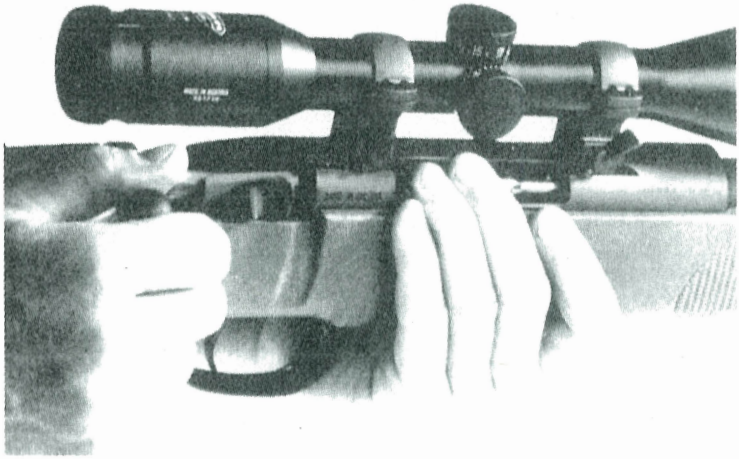


— fire

— set the weapon on safe again

5.4. Unloading the weapon

— detach magazine (see paragraph 5.1.)
— turn weapon so, that ejection port faces downwards.
— close magazine shaft with left thumb and ejection port with the other four fingers.



— release safety
— open bolt with right hand and eject cartridge - left hand grasps ejected round.
— verify that chamber is empty.
— close bolt again and pull trigger at the same time
— red indicator disappears in slide cap of bolt.
— set the weapon on ''safe''
— insert magazine

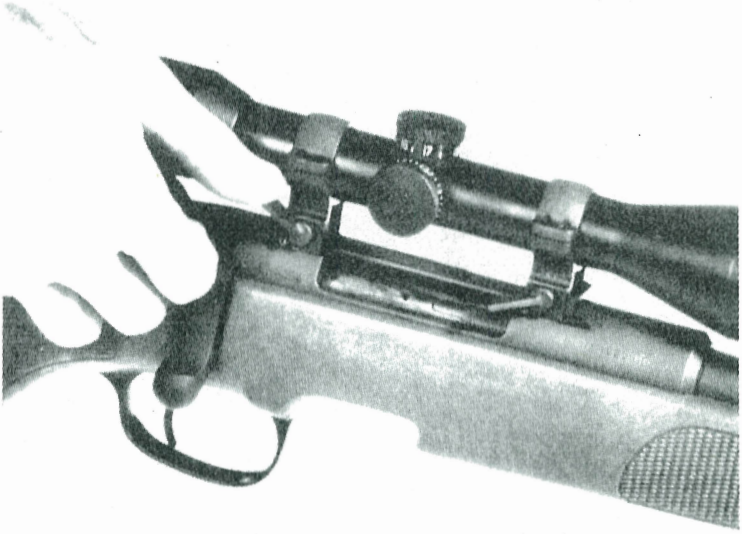
Caution: The weapon is now decocked and safe. It has to be noted that the unloading procedure has to be carried out whenever ammunition is used in relation with the weapon.

6. FIELD STRIPPING

Conduct a safety check by carrying out the unloading procedure

6.1. Detaching the scope

— open clamp screws



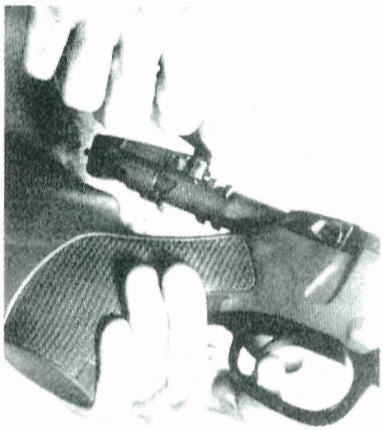
— pull back scope to its rear most position
— and detach scope from receiver

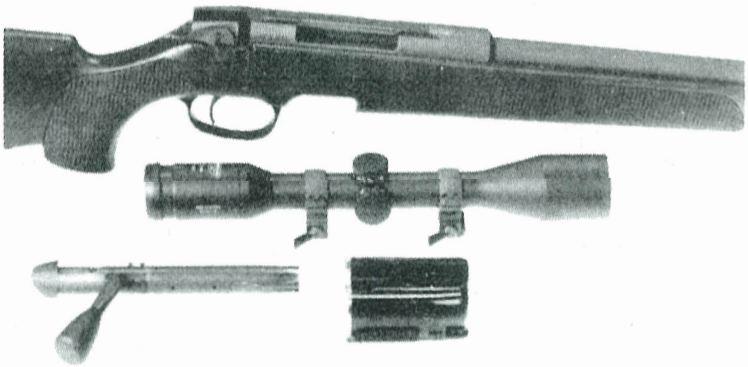
6.2. Removing the bolt

— unloaded weapon (see paragraph 5.4. until release safety)

— open bolt

— pull trigger and remove bolt by sliding it out backwards from receiver.





Note: further disassembling of the weapon should only be carried out by trained personel.

7. ACCESSORIES

7.1. Sniper Scope ZFM 6 x 42 Z

Technical data

Magnification	6 x
Field of view	4 degrees, 7 m / 100 m
Objective aperture	42 mm dia.
Exit pupil	7 mm dia.
Eye relief	80 mm
Dioptric adjustment	+/- 2.5 dpt
Parallax-free at	300 m
Resolution	10 arc sec
Light transmission	80 %
Centered reticle	
Elevation adjustment	10 mils, 40 clicks, 0.25 mil/click
Windage adjustment	+/- 2 mils, 0.1 mil/click
Range for alignment	Elevation: +/- 3 mils
	Azimuth: +/- 10 mils
Ringmount	26 mm dia.
Operation temperature	-30 deg C to +55 deg C
Storage temperature	-40 deg C to +71 deg C
Dust and waterproof	

Operation Instructions

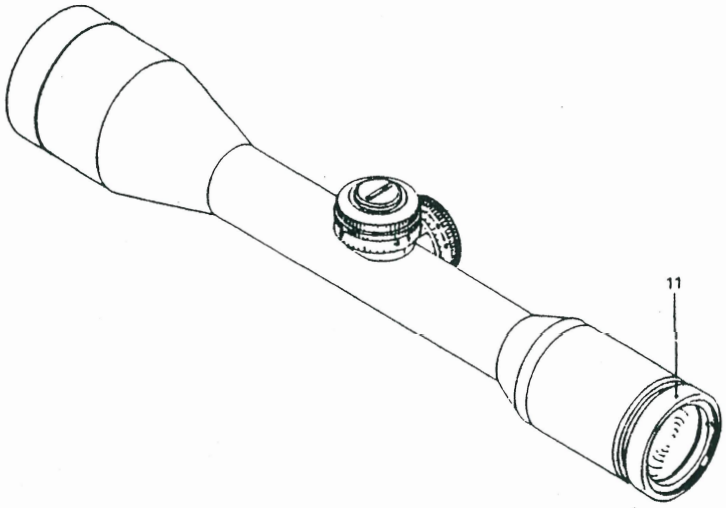
NOTE: Prior of shooting, a check is to be made to insure that the scope correctly is mounted on the weapon!

Focussing

Focussing of the eyepiece is accomplished by turning the eyepiece (11). To focus optimally, proceed as follows:

— turn the eyepiece counter-clockwise until it stops
— look through the scope — the correct distance between eyepiece and eye is about 80 mm
— turn the eyepiece clockwise until the image of the reticle pattern is sharply focussed.

The dioptric correction range is +/- 2.5 dpt.



Elevation adjustment

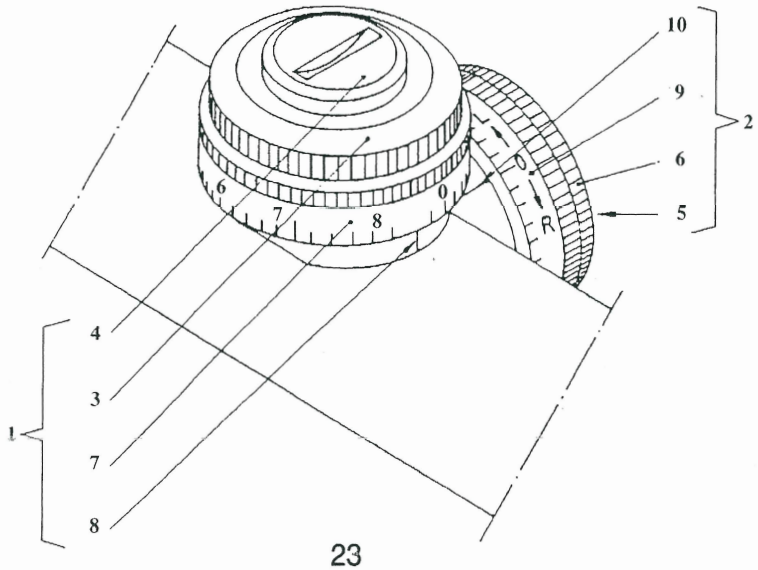
Elevation adjustment is carried out with the elevation turret on the top of the scope.

One click corresponds to a shift of the line of sight of 0.25 mil. The elevation drum (7) is scaled and numbered in clicks from 0 to 40. A conversion table shows the corresponding numbers of clicks to the target distances (100 m steps of target distances from 1 to 8).

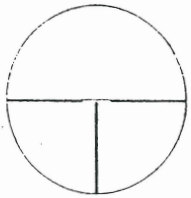
Windage adjustment

The turret for windage adjustment (2) is placed on the right side of the scope and allows fine lateral correction of the point of impact in order to, e. g., correct for side wind. The middle adjustment point is when the figure "0" is opposite the reference index (10). Clockwise adjustment of the windage turret (in the direction of "R") moves the point of impact to the right. Counter-clockwise adjustment (in the direction of "L") moves the point of impact to the left.

One click corresponds to 0.1 mil left or right. The adjustment range is +/- 2 mils.



Aiming procedure



Aim to the target with the center of the reticle pattern.

* The width of the horizontal central line corresponds to 0.15 mil
* the width of the vertical line and the outer horizontal lines corresponds to 1.5 mils
* the clear space between the arrow and the central horizontal line corresponds to 0.7 mil
* the interval between the thick horizontal lines corresponds to 14 mils.

ALIGNMENT OT THE WEAPON

General

The ZFM 6x42 Z Sniper Scope is a precision instrument. To be able to exploit its outstanding features maximally, mounting and alignment should be carried out by qualified personnel only.

Alignment to the weapon is done by ranging to a target butt in a shooting range.

Correction of the point of impact of the bullet is made by means of the elevation and windage adjustment turrets.

NOTE: Prior to sighting in, a check is to be made to assure that the scope is correctly mounted to the weapon!

Alignment

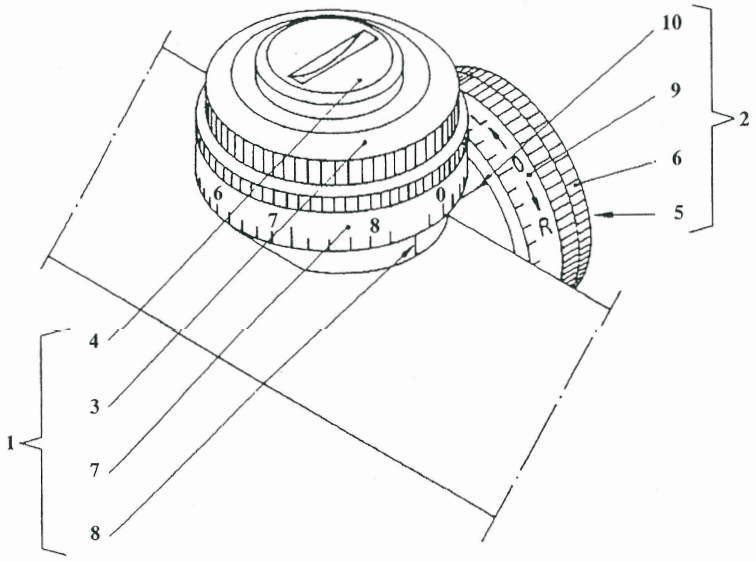
1. Adjust the elevation turret (1) for the range of the target, e.g. "0" clicks for a range of 100 m;
   adjust the windage turret (2) to "0"
2. Shoot one round

3. a) The point of impact is too low:
turn the elevation turret clockwise — one click moves the point of impact 25 mm / 100 m respectively 75 mm / 300 m

b) The point of impact is too high:
turn the elevation turret anti-clockwise — one click moves the point of impact 25 mm / 100 m respectively 75 mm / 300 m

c) The point of impact is left of the center:
turn the windage turret (2) clockwise (in the direction of "R") — one click moves the point of impact 10 mm / 100 m respectively 30 mm / 300 m

d) The point of impact is right of the center:
turn the windage turret anti-clockwise (in the direction of "L") — one click moves the point of impact 10 mm / 100 m respectively 30 mm / 300 m

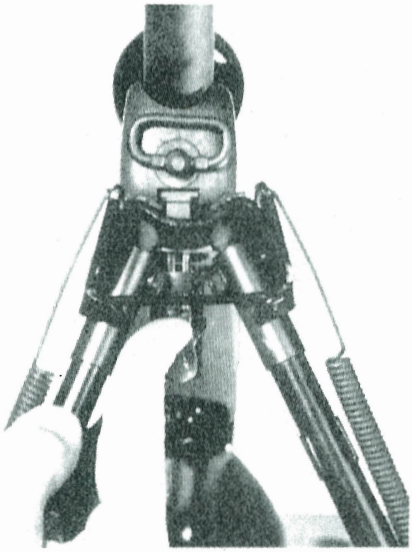


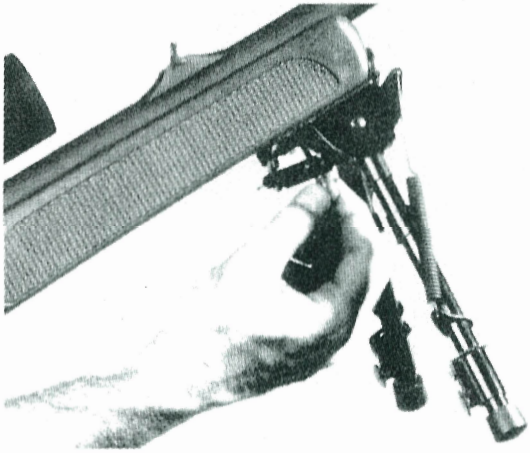
4. Repeat steps 2. and 3. until the point of impact is correct
5. Hold the knurled knob (3) fixed, loose the coin screw (4) and turn the elevation scale drum (7) until the correct click number is opposite the elevation reference index (8); retighten the coin screw (4).

   NOTE: Knurled knob must not rotate during this procedure! Hold the knurled knob (6) fixed, loose the coin screw (5) and turn the windage scale drum (9) until the "0" is opposite the windage reference index (10); retighten the coin screw (5).
   NOTE: Knurled knob must not rotate during this procedure!
6. Shoot three rounds to check the alignment.

7.2. Bipod

Mounting of the bipod.
Slide the bipod with adapter in the mounting rail and thighten clamp screw.





8. MAINTENANCE

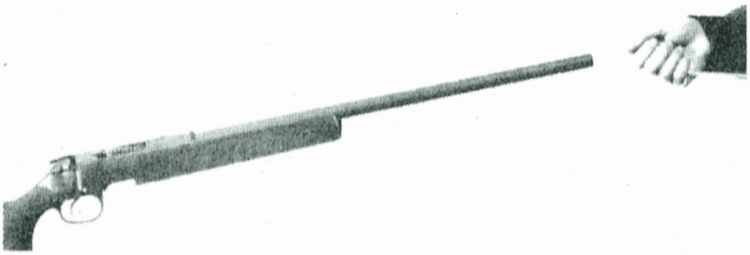
Careful treatment and correct maintenance will provide the guarantee that the Steyr SSG will remain in excellent condition even after years of hard service.

Bore and chamber

After each shooting, clean the bore and the chamber from the rear with weapon-oil or gun grease.

Always use a suitable cleaning rod of the right caliber. Apply oil onto the bristle brush, attach it to the cleaning cord - pull through and let the oil work for some time (10 minutes).

Apply oil to the copper brush and pull through. Now attach wick holder and pull it dry with suitable patches of weapon paper or cloth. To clean the chamber use a wooden stick oil and a rag.



External metal surfaces

Proper care of external metal surfaces is particularly important in humid weather or if the metal surfaces have come in contact with perspiring parts of your body.

9. DEALING WITH STOPPAGES

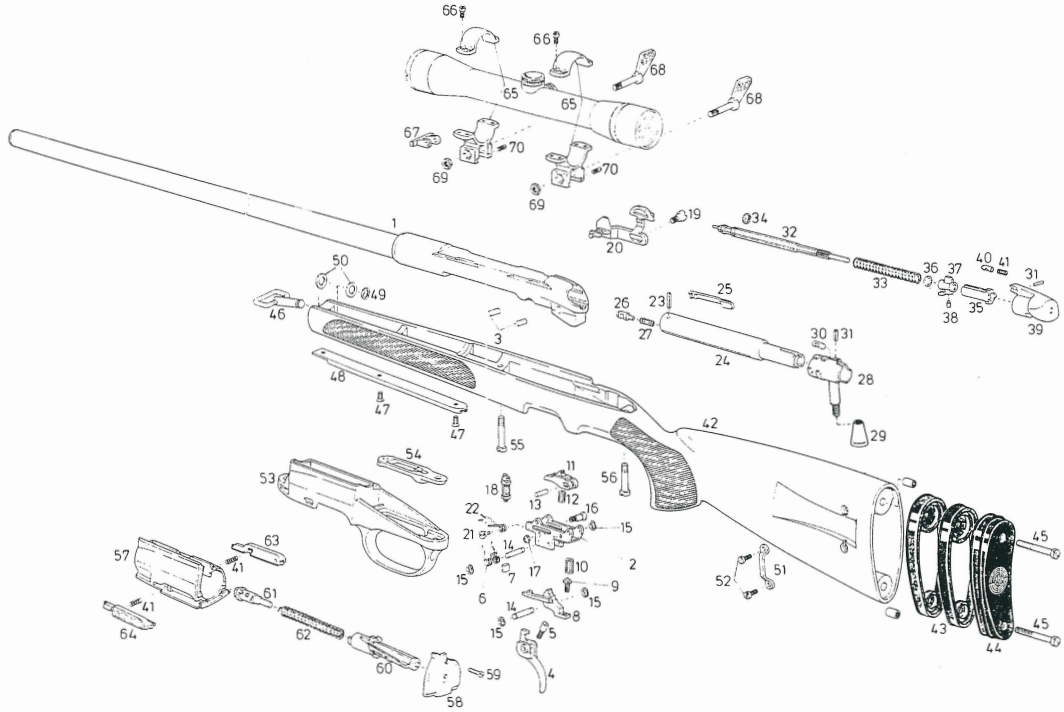
When the sniping rifle is handled and treated with care, it will function perfectly at all times.

If stoppages should occur nevertheless, they can, in the majority of cases, be remedied **by waiting for 1 minute,** whereupon the rifle is cocked and the trigger pulled once more.

The stoppages that may occur with the SSG and the way in which they can be dealt with is shown by the following table.

No.	Nature of blockage	Cause	Remedy
1	Failure to feed cartridge	a) Magazine not properly inserted	Magazine to be removed and reinserted until it clicks into place
		b) Magazine fouled	Magazine to be changed, cleaned
		c) Magazine damaged	Magazine to be changed, defective magazine to be submitted for inspection by the armourer
2	Bolt cannot be locked	a) Chamber or bolt fouled	Cleaning
		b) Defective cartridge	Cartridge to be exchanged and handed in
3	Cartridge is not ignited	a) Defective cartridge (primer punctured: misfire)	1 minute wait in firing position, then cocking the rifle and pulling the trigger. In the case of renewed failure, cartridge to be handed in, reloading.
		b) Striker pin or -spring defective or broken (primer not, or insufficiently, punctured)	procedure as with 3 a), thereafter sniping rifle and cartridge to be handed in for inspection
		c) Set trigger stop or trigger mechanism defective	to be exchanged
4	Cartridge case is not extracted	Extractor defective	to be exchanged
5	Cartridge case is extracted, but ejected faultily or not at all	Ejector fouled or defective	to be cleaned or exchanged

10. SPARE PARTS EXPLODED VIEW



Dra. No.	Nomenclature
1	Barrel with receiver complete
2	Trigger housing
3	Trigger housing pin
4	Single trigger
*	Set trigger complete
5	Adjusting screw
6	Spiral ring
7	Sliding leaf
8	Trigger sear
9	Adjusting screw
10	Trigger spring
11	Sear
12	Sear spring
13	Pillow pin
14	Pillow pin
15	Lock washer
16	Eccentric screw
17	Hexagon nut
18	Retaining bolt complete
19	Retaining screw
20	Safety catch slide
21	Check nut
22	Safety spring
23	Adapter sleeve
24	Bolt
25	Extractor
26	Ejector
27	Ejector spring
28	Bolt handle
29	Handle
30	Pin
31	Cylindrical
32	Firing pin
33	Hammer spring
34	Lock washer
35	Support sleeve
36	Disc

Dra. No.	Nomenclature
37	Firing pin lug
38	Slotted set screw
39	Bolt cap
40	Lock bolt
41	Spring
42	Stock
43	Spacer
44	Rubber plate complete
45	Screw
46	Swivel, sling, front compl.
47	Head chipboards screws
48	Rail
49	Retaining ring
50	Disc
51	Swivel, sling, rear
52	Pan head tapping screw
53	Trigger guard
54	Insert for set trigger
55	Trigger guard screw, front
56	Trigger guard screw, rear
*	Magazine assembly
*	Magazine assembly 10 cartr.
57	Magazine body
58	Magazine cover
59	Fastening screw
60	Follower complete
61	Follower cocking shaft
62	Follower spring
63	Magazine catch right
64	Magazine catch left
65	Scope base
66	Clamping screw
67	Support angle
68	Clamping lever
69	Hexagon nut
70	Slotted headless screw

* parts are not shown

Technical modifications and delivery range are reserved

Steyr Mannlicher USA, Inc.

311South Hwy 45 Alt.
West Point, MS 39773
Telephone (662) 492-8924
Fax (662) 492-8996

Factory authorized Service Center
DTSS
606 South Front Street
Montezuma IA 50171
Telephone (641) 623-3098